

US LHC ACCELERATOR PROJECT

brookhaven - fermilab - berkeley

US LHC Accelerator Project Summary and Assessment

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DOE Review
15 October 2003



Project Completion

We remain on track to complete the Project on schedule, on budget.

- All sub-projects are in production, and some are nearing completion:
 - 4 dipoles are at CERN, production will finish in ~3 months, testing in ~8 months.
 - 4 TAS are at CERN, and all remaining absorbers will be shipped this year.
 - First quad is ready to ship; production and testing will continue until spring 2005.
 - Cable testing will continue as level-of-effort through March 2005.
- We project all equipment deliveries to CERN in advance of installation need dates and before 30 Sep 05.

Risks remain, however.

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Managing Schedule Risks

Schedule for DFBX is tight - main schedule risks are:

- Significant design flaw uncovered during assembly,
- Testing difficulties (esp. leak check),
- HTS lead repair delays.

We are actively managing the risk by intense interaction with the DFBX vendor and with the HTS lead vendor.

Schedule for quads has become tight.

The critical path is CERN testing and delivery of correctors.

- CERN management is aware of this and pledges to keep on schedule.
- We will have to keep the pressure on.

The 2nd critical path is quad testing at FNAL - only weeks off critical path.

- Planning shorter test program to add float.
- Need to keep pressure on MTF and to get adequate priority.

Working on redefinition of "project complete."



Managing Technical Risks

Failure of 4th FNAL quad to reach field is a worry.

- o Not believed to be a systematic problem.
- o Further magnet tests and possible autopsy will clarify the risk.

No other major technical risks.

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Managing Cost Risk

Contingency remains tight.

- o Contingency is slightly below minimum of range from risk analysis
- o Aggressive management necessary to maintain contingency at tolerable level.
- o Funding to each lab = BAC
 - ... additional funds only via BCR for work scope changes.
- o Keeping top management at all 3 labs involved.
 - ... Cost savings by labs have helped.
- o Discussing use of CERN Direct funds, especially to cover CERN-induced costs.

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The Bottom Line

We remain fully committed to deliver on our commitments to CERN Full technical performance,
On time,
Within our budget,
and every action is and will be taken to ensure success.

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